

CLAIMS

1. A chucking apparatus in which a plurality of pawl bodies are provided in a radial direction of a hub body of a turntable such that said pawl bodies can move, a center hole of a disk is pressed by said pawl bodies to hold said disk, wherein
said chucking apparatus comprises a resilient member for biasing said pawl bodies outward of said hub body,
each of said pawl bodies includes a pawl portion which comes into contact with said disk, and a pawl-side stopper for limiting outward movement of said pawl bodies caused by said resilient member,
said hub body includes a pawl opening through which said pawl portion can project outward, and a hub-side stopper which abuts against said pawl-side stopper, and
a contact surface of a lower end of said pawl body with respect to a lower part is of an arc shape.
2. The chucking apparatus according to claim 1, wherein a position of said pawl portion in a standby state where said disk is not held by said pawl portion is set lower than a position of said pawl portion in a recording/replaying state where said disk is held by said pawl portion.
3. The chucking apparatus according to claim 1, wherein a coil spring is used as said resilient member, and an abutment position between said pawl-side stopper and said hub-side stopper is lower than a center line of said coil spring.
4. The chucking apparatus according to claim 2, wherein an abutment position between said pawl-side stopper and said hub-side stopper is provided on an inner side than said pawl portion.
5. The chucking apparatus according to claim 2, wherein said pawl-side stopper is provided on a side of said pawl portion.

6. The chucking apparatus according to claim 1, wherein said pawl portion is moved outward and a position of said pawl portion becomes lower in a case where a thickness of said disk is thin in a recording/replaying state where said disk is held by said pawl portion, as compared with a case where said disk is thick.

7. The chucking apparatus according to claim 6, wherein an upward guide surface provided on a tip end side of said pawl portion and a downward receiving surface of said hub body provided at a position opposed to said upward guide surface are inclined such that their tip end sides are lower.

8. The chucking apparatus according to claim 1, wherein said pawl-side stopper which limits the movement of said pawl body caused by said resilient member is provided closer to a tip end as compared with a contact portion between said pawl-side stopper and a lower end of said pawl body and of a lower part in a standby state where said disk is not held by said pawl portion, and said hub-side stopper which abuts against said pawl-side stopper has an inclined surface whose lower side is close to a tip end side.

9. The chucking apparatus according to claim 6, wherein a downward guide surface is provided at a position lower than a tip end of said pawl portion, said hub body is provided with an upper receiving surface at a position opposed to said downward guide surface, said downward guide surface comprises at least a first inclined surface and a second inclined surface, if said pawl portion is pressed from above by said disk, said first inclined surface is a surface against which said upper receiving surface abuts when a tip end of said pawl portion is inserted into a center hole of said disk or before said tip end of said pawl portion is inserted into said center hole of said disk, said second inclined surface is a surface against

which said upper receiving surface abuts after said tip end of said pawl portion is inserted into said center hole of said disk, an angle formed between said second inclined surface and a pressing direction is smaller than an angle formed between said first inclined surface and the pressing direction, and said downward guide surface slides along said upper receiving surface and said pawl portion moves inward by pressing said pawl portion from above.

10. The chucking apparatus according to claim 6, wherein a coil spring is used as said resilient member, an abutment position between said pawl-side stopper and said hub-side stopper is lower than a center line of said coil spring and is provided on the inner side than said pawl portion.

11. The chucking apparatus according to claim 1, wherein an inner side upward guide is provided on an inner portion of said pawl body,

said inner side upward guide gradually becomes higher toward inside, and said pawl portion moves inward by pressing said pawl portion is pushed from above.

12. The chucking apparatus according to claim 11, further comprising an inner side guide surface comprising an inclined surface which gradually becomes higher toward a center of said hub body, wherein said inner side upward guide slides along said inner side guide surface by pressing said pawl portion is pushed from above.

13. The chucking apparatus according to claim 12, wherein said inner side upward guide is provided on a side of said pawl body.

14. The chucking apparatus according to claim 11, wherein a projection provided on a side of said pawl body is provided with both said inner side upward guide and said pawl-side stopper.

15. The chucking apparatus according to claim 12, wherein said inner side guide surface comprising the inclined surface which gradually becomes higher toward the center of said hub body is continuously provided on an inner side of said hub-side stopper.

16. A disk apparatus using the chucking apparatus according to any one of claims 1 to 15, wherein said disk apparatus comprises a chassis outer sheath including a base body and a lid, a front surface of said chassis outer sheath is formed with a disk inserting opening in which a disk is directly inserted, a traverse provided on said base body holds a spindle motor and a pickup, an upper surface of said spindle motor includes said turntable, and said traverse is moved toward and away from said base body.